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(54) **PROMULGATING INFORMATION ON WEBSITES USING SERVERS**

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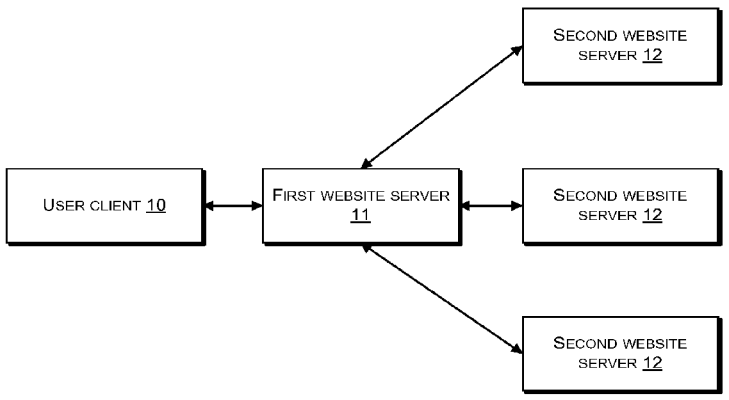
(57) **ABSTRACT**

A method uses web servers to promulgate information from one server to another, instead of promulgating the information by the user to each server individually. A first server receives a first request for promulgating web-information from a user, locally promulgates the web-information, and sends a second request to at least one second website server to instruct the second website server to locally promulgate the web-information. The selection of the second server is done according to a preset configuration file which includes a relationship mapping between the first website server and the second website server. The relationship mapping may provide the user information related to the second website server based on the user information related to the first website server. The present disclosure further discloses a communication apparatus and a communication system.

19 Claims, 3 Drawing Sheets



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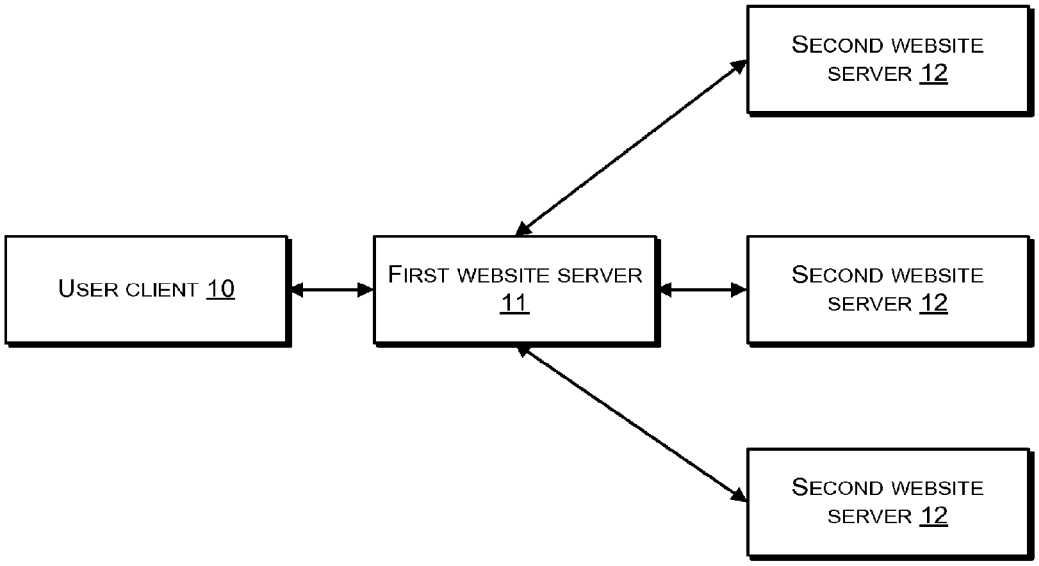
SECOND WEBSITE SERVER 12
USER CLIENT 10
FIRST WEBSITE SERVER 11
SECOND WEBSITE SERVER 12
SECOND WEBSITE SERVER 12

Fig. 1

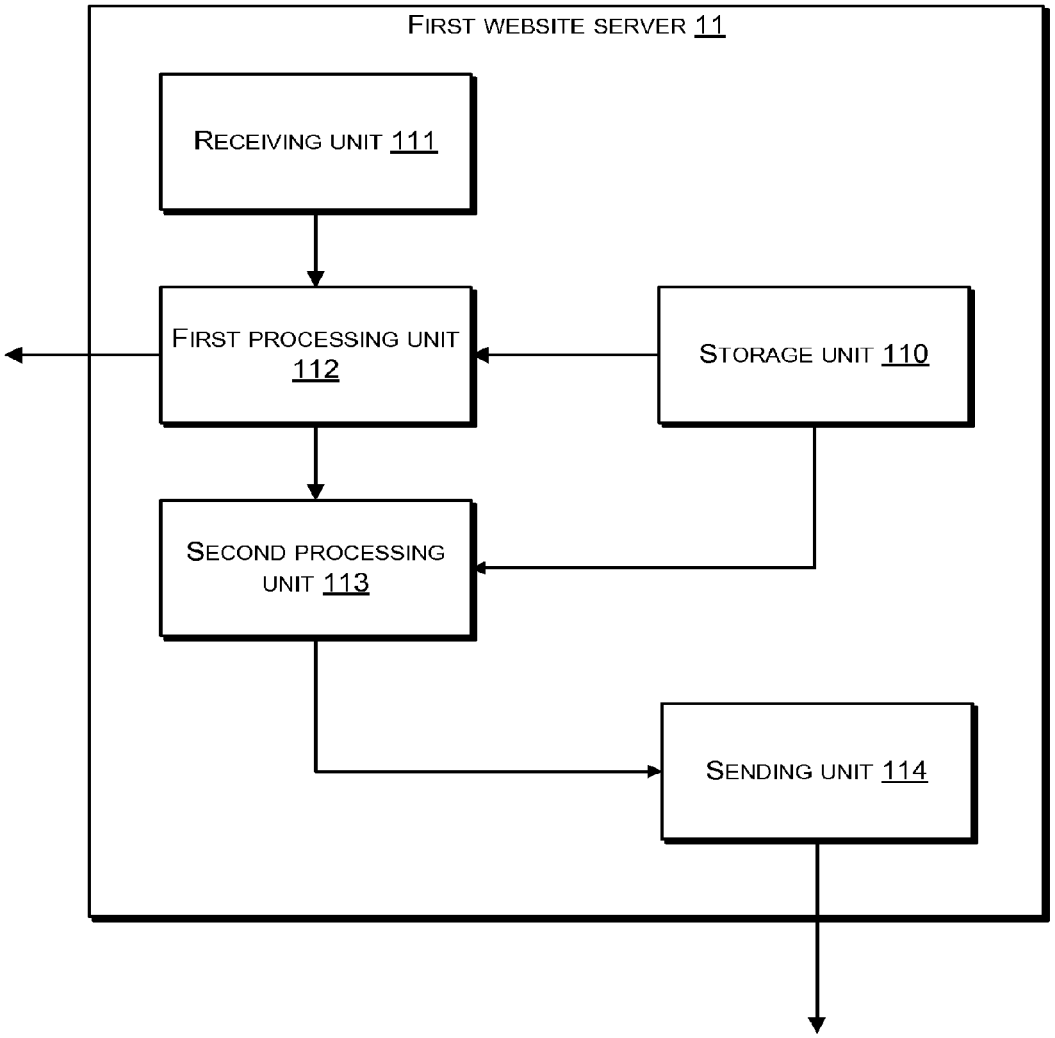
FIRST WEBSITE SERVER 11
RECEIVING UNIT 111
FIRST PROCESSING UNIT 112
STORAGE UNIT 110
SECOND PROCESSING UNIT 113
SENDING UNIT 114

Fig. 2

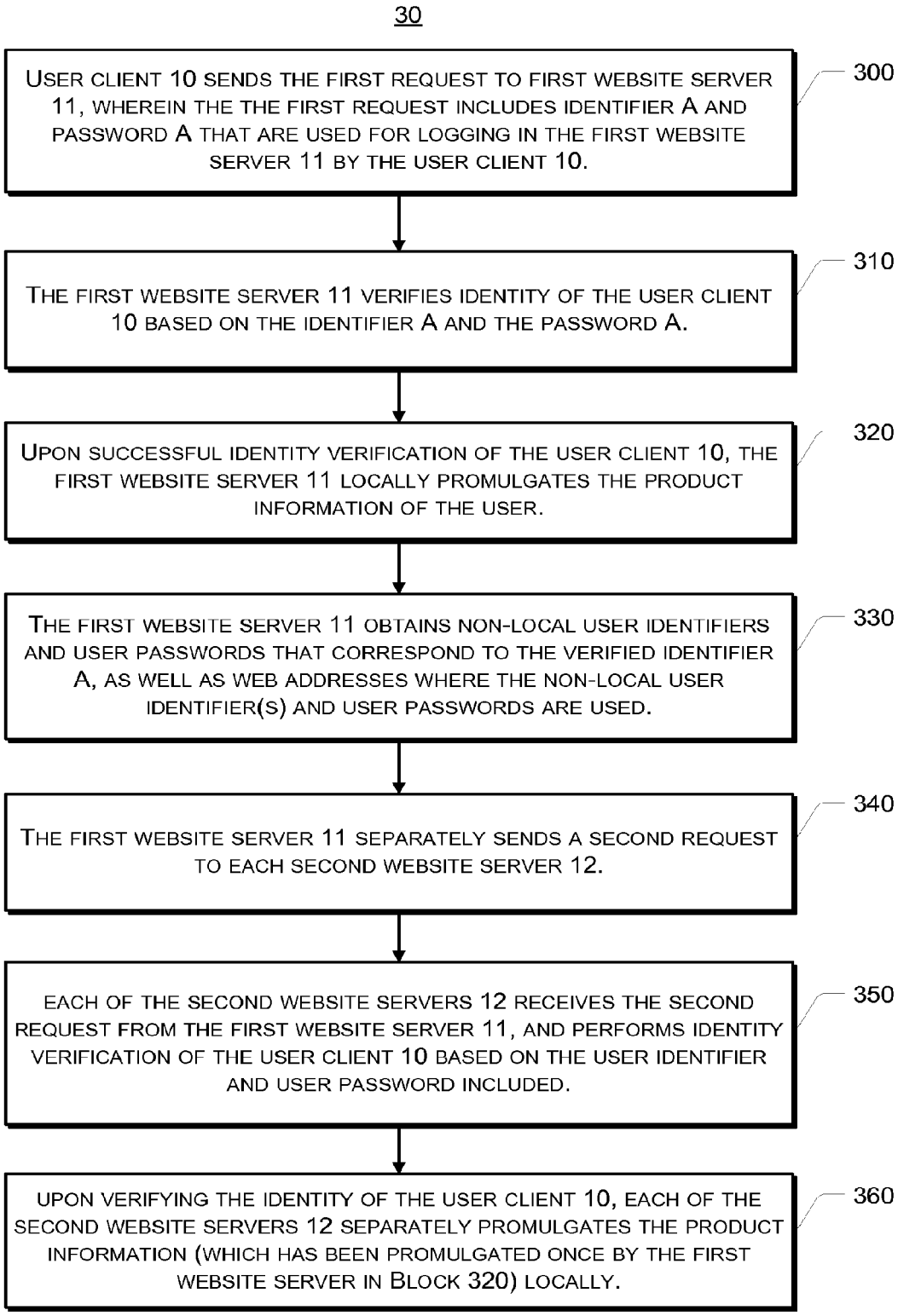
30
USER CLIENT 10 SENDS THE FIRST REQUEST TO FIRST WEBSITE SERVER 11, WHEREIN THE THE FIRST REQUEST INCLUDES IDENTIFIER A AND PASSWORD A THAT ARE USED FOR LOGGING IN THE FIRST WEBSITE SERVER 11 BY THE USER CLIENT 10.
300
THE FIRST WEBSITE SERVER 11 VERIFIES IDENTITY OF THE USER CLIENT 10 BASED ON THE IDENTIFIER A AND THE PASSWORD A.
310
UPON SUCCESSFUL IDENTITY VERIFICATION OF THE USER CLIENT 10, THE FIRST WEBSITE SERVER 11 LOCALLY PROMULGATES THE PRODUCT INFORMATION OF THE USER.
320
THE FIRST WEBSITE SERVER 11 OBTAINS NON-LOCAL USER IDENTIFIERS AND USER PASSWORDS THAT CORRESPOND TO THE VERIFIED IDENTIFIER A, AS WELL AS WEB ADDRESSES WHERE THE NON-LOCAL USER IDENTIFIER(S) AND USER PASSWORDS ARE USED.
330
THE FIRST WEBSITE SERVER 11 SEPARATELY SENDS A SECOND REQUEST TO EACH SECOND WEBSITE SERVER 12.
340
EACH OF THE SECOND WEBSITE SERVERS 12 RECEIVES THE SECOND REQUEST FROM THE FIRST WEBSITE SERVER 11, AND PERFORMS IDENTITY VERIFICATION OF THE USER CLIENT 10 BASED ON THE USER IDENTIFIER AND USER PASSWORD INCLUDED.
350
UPON VERIFYING THE IDENTITY OF THE USER CLIENT 10, EACH OF THE SECOND WEBSITE SERVERS 12 SEPARATELY PROMULGATES THE PRODUCT INFORMATION (WHICH HAS BEEN PROMULGATED ONCE BY THE FIRST WEBSITE SERVER IN BLOCK 320) LOCALLY.
360

Fig. 3

PROMULGATING INFORMATION ON WEBSITES USING SERVERS

RELATED APPLICATIONS

This application is a continuation of co-pending U.S. patent application Ser. No. 12/600,989, entitled PROMULGATING INFORMATION ON WEBSITES USING SERVERS filed Nov. 19, 2009, which is incorporated herein by reference in its entirety for all purposes, and which is a national stage application of international patent application PCT/US09/46593 filed Jun. 8, 2009, entitled "PROMULGATING INFORMATION ON WEBSITE USING SERVERS", which is incorporated herein by reference in its entirety for all purposes, and which claims priority from Chinese Patent Application No. 200810110612.0, filed Jun. 6, 2008, entitled "METHOD, APPARATUS AND SYSTEM FOR PROMULGATING INFORMATION ON WEBSITE", which is incorporated herein by reference in its entirety for all purposes.

TECHNICAL FIELD

The present disclosure relates to fields of communication, and particularly to methods, apparatuses and systems for promulgating information on websites.

BACKGROUND

In existing online marketing process, enterprises generally promulgate company-related information (such as product information) to a number of e-commerce websites with a view to promote purchase interests of the public or collaboration interests of needed providers. As a result, promulgating company-related information to various e-commerce websites to acquire a full information exposure has become an essential procedure in the online marketing process.

However, under existing technologies, if company-related information is promulgated among multiple e-commerce websites, user is required to repeat the same operations on these e-commerce websites in order to complete the promulgation of the company-related information. The redundant operations not only make the process cumbersome, but also greatly reduce the work efficiency of information promulgation.

SUMMARY OF THE DISCLOSURE

Disclosed is a method, an apparatus and a system for promulgating information on website to simplify the process of promulgating the same web-information to multiple website servers.

The method promulgates information from one server to another, instead of promulgating the information from the user to each server individually. A first server receives a first request for promulgating web-information from a user, locally promulgates the web-information, and sends a second request to at least one second website server to instruct the second website servers to locally promulgate the web-information. As a result, to promulgate the same web-information to multiple websites, a user only needs to request promulgation once on the first website server, thus avoiding redundant and cumbersome operations. This significantly improves the efficiency and user experience.

The selection of the second server is done according to a preset configuration file which includes a relationship mapping between the first website server and the second website servers. The relationship mapping may provide the user information related to the second website servers based on the user information related to the first website server. The relationship mapping may contain a mapped correspondence between the user information related to the first website server and the user information related to the second website servers. The related user information may contain a combination of any one or more of user identifier, user password, a device web-address, and a device identifier.

Upon receiving the first request, the first website server may verify the identity of the user based on related user information included in the first request. Upon receiving the second request, the second website servers may also verify the identity of the user based on related user information included in the second request.

The apparatus for promulgating information has a storage unit, a receiving unit, a processor, and a sending unit. The storage unit is adapted for storing a preset configuration file including a relationship mapping between the apparatus and at least one additional promulgating apparatus. The receiving unit is adapted for receiving a first request for promulgating web-information from a user. The processor is adapted for locally promulgating the web-information and for creating a second requests used for instructing the other promulgating apparatus to promulgate the web-information according to the configuration file. The sending unit adapted for sending the second request to the at least one additional promulgating apparatus.

Another aspect of the disclosure is a communication system including a first website server and multiple second website servers. The first website server is adapted for receiving a first request from a user, locally promulgating the web-information, and sending a second request according to a configuration file contained therein. The second website servers are adapted for receiving the second request from the first website server, and locally promulgating the web-information. The first website server selects at least one second website server among the second website servers according to a preset configuration file as recipient of the second request.

This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

DESCRIPTION OF DRAWINGS

The detailed description is described with reference to the accompanying figures. In the figures, the use of the same reference numbers in different figures indicates similar or identical items.

FIG. **1** shows a schematic diagram illustrating architecture of an exemplary communication system in accordance with the present disclosure.

FIG. **2** shows a structural diagram illustrating functions of an exemplary first website server in accordance with the present disclosure.

FIG. **3** shows a flow chart illustrating promulgating web-information by a user in accordance with the exemplary embodiments of the present disclosure.

DETAILED DESCRIPTION

According to the exemplary embodiments described herein, a method to simplify a user process of promulgating the same web-information to multiple website servers is dis-

closed. A first website server promulgates the web-information locally upon receiving from a user a first request for promulgating the web-information. According to a preset configuration file, the first website server sends a second request to at least one second website server, and instructs the second website server(s) to locally promulgate the web-information. The configuration file includes a relationship mapping between the first website server and the second website server(s). As a result, to promulgate the same web-information to multiple websites, the user only needs to execute a promulgation operation once, thus avoiding redundant and cumbersome operations. The work efficiency and the user experience are therefore improved.

Exemplary embodiments of the present disclosure are described in details using accompanying figures.

FIG. **1** shows an exemplary communication system **5**, which includes a user client **10**, a first website server **11**, and at least one second website server **12**.

The user client **10** is used for sending a first request for promulgating web-information to a first website server **11**. The first website server **11** is used for receiving the first request from the user client **10**, and locally promulgating the web-information. The first website server **11** is further used for sending a second request to at least one second website server **12** according to a preset configuration file to instruct the second website server(s) to locally promulgate the web-information. The configuration file includes a relationship mapping between the first website server **11** and the second website servers **12**.

The second website server **12** is used for receiving the second request from the first website server **11**, and locally promulgating the web-information.

In one embodiment, the first website server **11** works as self-contained apparatus for promulgating information. The first website server **11** contains a comprehensive relationship mapping to all desired additional promulgating apparatuses second servers and other web devices that are desired to receive the web-information and promulgate the web-information locally. There is no need for a second server to further promulgate the web-information to other servers requesting further promulgation.

In another embodiment, at least some second website servers **12** are configured as a promulgating apparatus in a way similar to how the first website server **11** is configured. The second website servers **12** configured in this manner are capable of further promulgating the web-information to other servers requesting additional local promulgation or additional networked promulgation.

It is noted that although illustrated as website servers, the first website server **11** may be replaced by a server that does not host a website but is designed for promulgating information to networked website servers (e.g., the second website servers **12**). At least some of the second website servers **12** may be replaced by a suitable promulgation apparatus which is not necessarily a website server hosting a website. A suitable promulgation apparatus should generally be a valuable target for promulgating web-information.

FIG. **2** shows an exemplary first website server **11**, which includes a storage unit **110**, a receiving unit **111**, a first processing unit **112**, a second processing unit **113**, and a sending unit **114**. In the presence disclosure, a "unit" in general refers to a functionality designed to perform a particular task or function. A unit can be a piece of hardware, software, a plan or scheme, or a combination thereof, for effectuating a purpose associated with the particular task or function. In certain circumstances, multiple units may be embodied in a single hardware or software component which performs multiple functions.

The storage unit **110** is used for storing a preset configuration file, which includes relationship mapping between the first website server **11** and the second website servers **12**. The relationship mapping contains a map correspondence between the user information related to the first website server and the user information related to the second website server.

The receiving unit **111** is used for receiving a first request for promulgating web-information from the user client **10**. The first processing unit **112** is used for locally promulgating the web-information. The second processing unit **113** is used for creating at least one second request according to the configuration file. The second request is used for instructing the second website servers **12** to promulgate the web-information. The sending unit **114** is used for sending the second request to the second website servers **12**.

Based on the above system architecture, the first website server **11** and the second website servers **12** may either have the same functionalities, or have different functionalities. In the exemplary embodiments, the first website server **11** is assumed to be a website server within a company's intranet, while the other second website servers **12** are public website servers (i.e., e-commerce websites).

FIG. **3** is a flowchart of an exemplary process **30** of promulgating the same web-information to multiple second website servers **12** through the first website server **11**. In this description, the order in which a process is described is not intended to be construed as a limitation, and any number of the described process blocks may be combined in any order to implement the method, or an alternate method. The process **30** is described as follows.

At Block **300**, the user client **10** sends a first request to the first website server **11** to instruct the first website server **11** to locally promulgate certain web-information. The first request includes related user information that is used for the first website server **11** to verify the identity of the user using the user client **10**.

The user client **10** may further include in the first request the web-information that is instructed to be promulgated. Alternatively, the user client **10** may send the web-information separately after receiving a feedback confirming successful identity verification from the first website server **11**. In the present exemplary embodiment, the first approach is used for illustration.

In a practical application, various forms of the related user information can be used by the user client **10** for identity verification. Examples include user identifier+user password, IP address of the user client **10**, and device identifier of the user client **10**. In the present exemplary embodiment, user identifier+user password is used by the user client **10** as the related user information.

In the following, it is assumed that the user client **10** has an Identifier A and a Password A with relation to the first website server **11**. That is, in the first website server **11**, the local identifier and the local password of user client **10** is Identifier A and Password A, respectively.

As shown in TABLE 1, the first website server **11** may store multiple user identifiers and corresponding user passwords for identity verification. Different user identifiers and user passwords are used to identify different individual users.

TABLE 1

Local User Identifier	Local User Password
Identifier A	Password A
Identifier B	Password B
...	...

At Block **310**, the first website server **11** verifies the identity of the user client **10** based on Identifier A and Password A.

In a practical application, if no identity verification is required for promulgation of web-information in the first website server **11**, verification procedures in Blocks **300** and **310** may be omitted.

At Block **320**, upon successfully verifying the identity of the user client **10**, the first website server **11** locally promulgates the web-information as requested by the user client **10**. For the purpose of illustration, in this exemplary embodiment, the web-information that is requested for promulgation by the user client **10** is assumed to be information of outdoor product supplies.

The first website server **11** may promulgate the information of outdoor product supplies in a number of ways. Examples include, but are not limited to, fixed-point play on a web page using FLASH advertising, or publishing on a separate or dedicated web page.

Upon promulgating the information of outdoor product supplies, the first website server **11** may save the information locally or in a designated storage device for backup information. Alternatively, the first website server **11** may delete the information for saving storage space. Specific processing procedures may be pre-determined by the management according to a practical application environment.

At Block **330**, the first website server **11** obtains from the relationship mapping non-local user identifiers and non-local user passwords corresponding to the local Identifier A, and web addresses of the places where respective non-local user identifiers and non-local user passwords are used. In this exemplary embodiment, a place where a non-local user identifier and a non-local user password are used refers to one of the second website servers **12**.

For example, as shown in TABLE 2, Identifier A, Identifier C, and Identifier D are non-local user identifiers that correspond to the Identifier A. It is noted that the Identifier A may also be used the nonlocal identifier of the same user in other non-local servers. If the same user identifier is used both locally and non-locally, either the same user password or different user passwords may be used for the user identifier locally and non-locally.

TABLE 2

Local User Identifier	Non-local User Identifier	Non-local User Password	Second Website Server Address
Identifier A	Identifier A	Password A'	Address A
	Identifier C	Password C	Address B
	Identifier D	Password D	Address C
	...	...	...
Identifier B	Identifier E	Password E	Address D
...	...	...	...

As shown in TABLE 2, the Identifier A corresponds to at least three second website servers **12** in this exemplary embodiment. This means that the user identified by the Identifier A on the first website server **11** has a business relationship with (e.g., having a user account) at least three second website servers **12**. Therefore, the user may intend to promulgate the same product information on these second website servers **12** as well. In other words, the information of outdoor product supplies of the user client **10**, which is promulgated on the first website server **11**, needs to be also promulgated on these three second website servers **12**.

At Block **340**, the first website server **11** sends a second request to each of these three or more second website servers **12** instructing local promulgation of the information of outdoor product supplies. The same information has been promulgated in Block **320**.

Depending on the non-local user information, the second request sent to different second website servers **12** may contain different identification information. In the present exemplary embodiment, for example, the second request sent to each of the three second servers **12** includes "identifier A and password A", "identifier C and password C", or "identifier D and password D", respectively.

With reference to Block **300**, the first website server **11** may include the information of outdoor product supplies in the second request and send the information along with the second request to the second website servers **12**. Alternatively, the first website server **11** may separately send the information of outdoor product supplies after the first website server **11** has received a feedback confirming successful identity verification from the second website server **12**. In this exemplary embodiment, the first approach is used for illustration.

At Block **350**, each of the second website servers **12** receives the respective second request from the first website server **11**, and performs identity verification of the user client **10** based on respective user identifier and user password included in the second request.

At Block **360**, upon verifying the identity of the user client **10**, each of the second website servers **12** separately promulgates the information of outdoor product supplies locally. The same information has been promulgated in Block **320**.

Similar to that in Block **320**, upon promulgating the information of outdoor product supplies, the second website server **12** may save the information locally or in a designated storage device for backup information. Alternatively, the second website server **12** may delete the information for saving up storage space. Specific details are not repeated.

In a practical application, if no identity verification is required for promulgation of web-information in any of the second website servers **12**, the respective verification procedures in Blocks **350** and **360** may be omitted.

In the above exemplary embodiment, the methods of identity verification in the first website server **11** and the second website servers **12** may or may not be the same. For example, "user identifier+user password" may be used for identity verification in the first website server **11** while "device identifier" is used in any of the second website servers **12**. Evidently, the same or different identity verification methods may be used among the second website servers **12**. Specific details are not repeated here again.

In a practical application, the first website server **11** and the second website servers **12** in foregoing exemplary embodiments may have the same or similar functionalities, but may also be different in various aspects. For example, both the first website server **11** and the second website server **12** may be public website servers. The user client **10** may promulgate the web-information in one of the website servers to trigger the website server to instruct other website servers (with which the user client **10** has registered) to locally promulgate the same web-information separately.

The foregoing Blocks **300**-**360** assumes for the purpose of illustration that the first website server **11** is a company internal website server and the second website servers **12** are

public website servers or website servers of other companies. If both the first and the second website servers are public website servers, procedures are similar to the above and will not be described here again.

As indicated above, the first website server has a desired configuration file containing the necessary relationship mapping that relates a user registered with the first website server to the second website servers. As long as the relationship mapping is sufficiently complete, there may be no need for further promulgation from the second website servers to any subsequent layers of website servers (e.g., third website servers). Nevertheless, in principle, multiple layer promulgation is possible given proper considerations to server selectivity from one layer to the other (e.g., implementation of rules that prevent backward promulgation of information from a website server to any website server that has already performed local promulgation of the same information).

On the other hand, the first website server **11** may send the second requests only to selected second website servers **12** based on the content of web-information. For example, the web-information may be that of a product of certain type. Users may have a variety of web-information for various types of products. The web-information of a certain type of products may be sent to a subset of second website servers that are particularly suited for promulgating the web-information of this type of products.

An example definition of information types is shown in Table 3.

TABLE 3

Information Type	Information Content
Type X	Kitchen Products
Type Y	Sanitary and Bath Products
Type Z	Outdoor Products
. . .	. . .

According to TABLE 3, if the first website server **11** receives a request containing a type identifier "Y" from the user client **10**, the first website server **11** may selectively send out the second request to related second website servers **12** according to configuration information that is shown in Table 4:

TABLE 4

Information Type	Related User Information	Web Address
Type X	Identifier A/Password A	Address A
	Identifier B/Password B	Address B
	. . .	. . .
Type Y	Identifier C/Password C	Address C
Type Z	Identifier D/Password D	Address D
. . .	. . .	. . .

According to the above TABLE 4, Type Y products are suited for information promulgation on a website identified by "Address C". The first website server therefore sends the second request to a second server hosting the website identified by "Address C". The second request may include the related non-local user information Identifier C/Password C associated with website. Each product type may correspond to multiple websites.

In conclusion, in the exemplary embodiments of the present disclosure, the first website server **11** receives a first request for promulgating web-information from the user client **10**, and promulgates the web-information locally. The first website server **11** further sends a second request to at least one second website server **12** and instructs the second website server(s) to locally promulgate the web-information according to a preset configuration file. As a result, to promulgate the same web-information to multiple websites, the user only needs to execute the promulgation operation once, thus avoiding redundant and cumbersome operations. The work efficiency and the user experience are therefore greatly improved.

It is appreciated that the potential benefits and advantages discussed herein are not to be construed as a limitation or restriction to the scope of the appended claims.

Although the subject matter has been described in language specific to structural features and/or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or acts described. Rather, the specific features and acts are disclosed as exemplary forms of implementing the claims.

The invention claimed is:

1. A method comprising:

receiving, by a first website server from a client, a first request to promulgate web-information to a plurality of second website servers, wherein the plurality of second web site servers are associated with a plurality of e-commerce web sites; and

in response to receiving the first request:

configuring, by the first web site server, a plurality of second requests to promulgate the web-information to the plurality of second web servers, each of the plurality of second requests being configured according to a configuration file associated with promulgation of web-information to the plurality of second website servers and corresponding account information associated with promulgation of the web-information at the particular second website server; and

respectively sending, by the first web site server, the plurality of second requests to promulgate the web-information to the corresponding plurality of second web site servers;

wherein the configuration file stores a mapping between an account associated with the first web site server and the plurality of second web site servers.

2. The method of claim **1**, wherein one or more of the plurality of second requests is communicated to a respective second website server using a first message that includes the corresponding account information and a second message that includes the web-information.

3. The method claim **1**, wherein in response to respectively receiving the corresponding second request, a second web site server sends a request to a respective third web site server to promulgate the web-information.

4. The method of claim **1**, further comprising:

selecting, by the first website server, the plurality of second website servers based at least on an information type of the web-information.

5. The method of claim **4**, wherein the first website server selects the plurality of second website servers according to a type identifier of the web-information.

6. The method of claim **1**, further comprising:

upon receiving the first request, verifying, by the first web site server, an identity of a user based on related user information included in the first request.

7. The method of claim **6**, wherein the related user information comprises a combination of any one or more of: a user identifier, a user password, a device web-address, or a device identifier.

8. The method of claim 1, further comprising:

upon respectively receiving the second request, verifying, by the respective second website server, an identity of the user based on related user information included in the second request.

9. The method as recited in claim 1, wherein the mapping contains a map correspondence between user information related to the first website server and user information related to one or more of the plurality of second website servers.

10. The method of claim 1, further comprising:

storing, by the first website server, one or more configuration files.

11. A device comprising:

one or more processors configured to:

receive, from a client, a first request to promulgate web-information to a plurality of second web site servers, wherein the plurality of second web site servers are associated with a plurality of e-commerce web sites; and

in response to receiving the first request:

configure a plurality of second requests to promulgate the web-information to the plurality of second web servers, each of the plurality of second requests being configured according to a configuration file associated with promulgation of web-information to the plurality of second website servers and corresponding account information associated with promulgation of the web-information at the particular second website server; and

respectively send, the plurality of second requests to promulgate the web-information to the corresponding plurality of second web site servers;

wherein the configuration file stores a mapping between an account associated with the first web site server and the plurality of second web site servers; and

a storage module configured to store one or more configuration files.

12. The device of claim 11, wherein one or more of the plurality of second requests is communicated to a respective second website server using a first message that includes the corresponding account information and a second message that includes the web-information.

13. The device of claim 11, wherein the one or more processors are further configured to select the plurality of second website servers based at least on an information type of the web-information.

14. The device of claim 11, wherein the one or more processors select the plurality of second website servers according to a type identifier of the web-information.

15. The device of claim 11, wherein the one or more processors are further configured to verify an identity of a user based on related user information included in the first request upon receiving the first request.

16. The device of claim 15, wherein the related user information comprises a combination of any one or more of a user identifier, a user password, a device web-address, or a device identifier.

17. The device of claim 11, wherein the mapping contains a map correspondence between user information related to the first website server and user information related to one or more of the plurality of second website servers.

18. A computer program product embodied in a tangible non-transitory computer-readable storage medium and comprising computer instructions for:

receiving, by a first website server from a client, a first request to promulgate web-information to a plurality of second website servers, wherein the plurality of second web site servers are associated with a plurality of e-commerce web sites; and

in response to receiving the first request:

configuring, by the first web site server, a plurality of second requests to promulgate the web-information to the plurality of second web servers, each of the plurality of second requests being configured according to a configuration file associated with promulgation of web-information to the plurality of second website servers and corresponding account information associated with promulgation of the web-information at the particular second website server; and

respectively sending, by the first web site server, the plurality of second requests to promulgate the web-information to the corresponding plurality of second web site servers;

wherein the configuration file stores a mapping between an account associated with the first web site server and the plurality of second web site servers.

19. The method of claim 1, wherein the plurality of second requests respectively include account information for the corresponding plurality of second web servers, the account information being obtained based at least in part on the first request.

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